



Uses and needs for climate information by municipal water providers on the Front Range of Colorado

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Current uses of climate information in water management

- Use of the instrumental record of hydro-climate variables in planning and operations models
- The use of climate influenced hydro-climate parameters to generate projections of streamflow, reservoir contents, or water supply
 - SWE, historic records of streamflow, water year precipitation
- Use of paleoclimate data, e.g. reconstructions of SWE or streamflow
- Use of forecasts of climate variables, e.g., precipitation or temperature, such as the NOAA/CPC Monthly and Seasonal Climate Forecasts, or medium-range weather forecasts
- Climate variability reflected in annual and longer term operations in ways other than use of forecasts



Findings

- Seasonal climate forecasts not widely used, but climate-related data used in annual and longer-term planning
 - Suggests potential to incorporate the right climate products
 - Overall history of adopting innovations suggests that there will be a next generation in water management
- Other needs revealed:
 - Potential uses include information that exists, but not well utilized
 - Trend, shorter term temperature forecasts
 - Other requirements don't exist
 - Streamflow hydrographs (CBRFC, not MBRFC or NRCS); flow forecasts conditioned on forecast
 - Needs for information across-time scales or “seamless suite” needs
- Keystone organizations are one good target for climate services
 - Manage large fraction of the water
 - Trained staff, play a regional role in testing and proving innovations
 - Professional networks extend knowledge and practices
- “Perceived” user needs are not a stable indicator: as participants have learned about climate in general and specific products, they are interested in more complex information
- Diversity of capacity, resources
- Diversity of vulnerability
- More interest in climate information from those with higher capacity or vulnerability